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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/711,761

10/04/2004

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IAC 05060 PUS

5760

25286

7590

05/28/2008

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EXAMINER

DANIELS, MATTHEW J

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

05/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/711,761	Applicant(s) DONATTI ET AL.	
	Examiner MATTHEW J. DANIELS	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/4/04, 6/12/06, 8/21/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group II, Claims 11-18 in the reply filed on 4 February 2008 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Since there is no traversal of the restriction requirement, the title should be amended to reflect the elected invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 11-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang (USPN 6352658) in view of Holloway (USPN 3398858). **As to Claim 11**, Chang teaches a method of supplying colored polyurethane forming materials, the method comprising:

a) supplying one of isocyanate and polyol to a selected one of multiple premix chambers (24, 26, 28);

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- b) supplying colorant to the selected one of the premix chambers (10:58);
- c) mixing the colorant with the polyol in the selected one of the premix chambers to form a mixture of selectively colored material (inherent in that the polyol is pigmented at some point);
- d) supplying the selectively colored material (26) and the isocyanate (28) to a spray head (32 and 34).

Chang is silent to (b) supplying colorant from a selected one of multiple colorant sources; (c) mixing colorant and polyol in the selected one of the premix chambers, and (e) repeating a), b), c) and d) by selecting a different premix chamber in a) and a different colorant in b).

However, these aspects of the invention would have been prima facie obvious for the following reasons:

(b) Holloway teaches providing colorant from one of a selected number of colorant sources (28, 20) and mixing it in with a base material in a mixing or premixing chamber (8, 9).

(c) Chang teaches a polyol material in a tank or reservoir (26) and adding a pigment to the polyol component (10:52-60). Although silent to the order of placing the polyol in the premix chamber and adding the pigment, this limitation is drawn to a difference in the order of steps of mixing ingredients and placement in a reservoir, and one of ordinary skill in the art would have found it obvious to select any order of placing the polyol in the premix chamber (26) and adding the pigment. No unexpected result appears to be present from the claimed order of steps.

Additionally, Holloway teaches supplying colorant and mixing in what is interpreted to be a premix chamber.

(e) Since one of ordinary skill in the art performing the Chang method would recognize that it is desirable to provide more than one color, it would have been prima facie obvious to provide

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multiple premix chambers in order to accommodate multiple colors. One would have provided multiple premix chambers because (i) it would be desirable to avoid contamination of a polyol with another pigmented material, (ii) multiple premix chambers would provide the ability to store one polyol and return to it later, (iii) one polyol could be mixed according to the Holloway while another is being sprayed in the Chang method, and (iv) Chang suggests that at least three polyol premix chambers are already present (A, B, C, Table 1). This is interpreted to be merely duplication of an element and step already disclosed by Chang.

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Holloway into that of Chang because Chang suggests adding pigment to the polyol, and Holloway provides a system and process for dosing pigment or colorant to a base material and is interpreted to provide that which Chang suggests.

As to Claim 12, Chang provides polyol to a premix chamber (26) and isocyanate (28) to the spray head (28, 29). **As to Claims 13 and 14**, Chang teaches a catalyst as optional (10:52-60), and thus it would have been obvious to use a catalyzed polyol or a non-catalyzed polyol. **As to Claim 15**, Chang provides a method in which a first part is formed by applying a first portion as a skin layer and second portion as a foam (3:18-62) using the same mixing head and nozzle. Only the skin layer is described as a decorative object (3:28-29). A pigment or dye is optionally used with each polyol (10:52-60). The limitations of Claim 15 would have been prima facie obvious because (a) they are drawn to the decorative aspects of an article, which are generally insufficient to distinguish a process from the prior art, or (b) Chang is silent with respect to any pigment in either layer (column 3), but in view of the suggestion that the skin layer is decorative,

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one would have provided the optional pigment or dye to the skin layer in order to enhance is decorative appeal.

4. **Claim 16** is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang (USPN 6352658) in view of Holloway (USPN 3398858), and further in view of Ragsdale (USPN 6220296). Chang and Holloway teach the subject matter of Claim 11 above under 35 USC 103(a). **As to Claim 18**, Chang teaches dyes (10:57), which the Examiner interprets to be a liquid colorant. In the alternative, however, Ragsdale teaches that it is known to use liquid colorants with polyols prior to mixing with isocyanates to form polyurethane (Abstract, Field of the Invention). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Ragsdale into the modified method of Chang because (a) Chang suggests dyes, and the liquid colorants would be interpreted as dyes, (b) one of ordinary skill in the art would have found pigments and liquid colorants to be known, substitutable alternatives and that liquid colorants are particularly desirable since they are less likely to cause abrasion and clogging (Ragsdale, 2:1-9).

5. **Claim 17** is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang (USPN 6352658) in view of Holloway (USPN 3398858), and further in view of Hagquist (USPN 5556934). Chang and Holloway teach the subject matter of Claim 11 above under 35 USC 103(a). **As to Claim 17**, Chang is silent to the nitrogen blanket. However, Hagquist teaches that foaming action may result from moisture reaction when the polyol is not stored under dry inert gas such as nitrogen (3:58-62). It is noted that Chang provides in one embodiment a first skin

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layer that is unfoamed, followed by a foamed layer (3:18-35). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the nitrogen storage of Hagquist into the modified method of Chang because Chang clearly suggests a skin layer that is unfoamed, and Hagquist teaches that a nitrogen atmosphere must be maintained in order to avoid foaming. Therefore, Hagquist provides a known method to achieve the result desired by Chang.

6. **Claim 18** is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang (USPN 6352658) in view of Holloway (USPN 3398858), and further in view of Proksa (USPN 4749554). Chang and Holloway teach the subject matter of Claim 11 above under 35 USC 103(a). **As to Claim 18**, Chang is silent to the recirculation of one of the materials when not in use. However, it is submitted that it is conventional in the art to do so, and Proksa is one example. For example, Proksa teaches that the polyol and isocyanate components are conveyed from storage containers to a nozzle, but passed back into the storage container via return pipes when the nozzle is closed (7:5-15). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Proksa into the modified method of Chang because (a) Proksa suggests the apparatus for a process similar to that of Chang (polyol and isocyanate conveyed to a nozzle), suggesting the combination, and (b) In view of the similarities of the Proksa and Chang methods, one would have recognized the applicability of the Proksa method to the Chang process to achieve the same benefits and predictable results that the polyol and isocyanate material would not solidify in the heads and would not clog the heads.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW J. DANIELS whose telephone number is (571)272-2450. The examiner can normally be reached on Monday - Friday, 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew J. Daniels/
Primary Examiner, Art Unit 1791
5/23/08